2

In the claims:

Please amend the claims as follows:

Claims 1-8. (Canceled)

- 9. (Previously presented) An isolated human antibody, or antigen-binding portion thereof, that binds to human IL-12 and dissociates from human IL-12 with a K_d of 1×10^{-10} M or less and a k_{off} rate constant of 1×10^{-3} s⁻¹ or less, as determined by surface plasmon resonance.
- 10. (Previously presented) The isolated human antibody of claim 9, or an antigen-binding portion thereof, which dissociates from human IL-12 with a $k_{\rm off}$ rate constant of 1 x 10^{-4} s⁻¹ or less.
- 11. (Previously presented) The isolated human antibody of claim 9, or an antigen-binding portion thereof, which dissociates from human IL-12 with a $k_{\rm off}$ rate constant of 1 x $10^{-5} {\rm s}^{-1}$ or less.
- 12. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-9} M or less.
- 13. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-10} M or less.
- 14. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-11} M or less.

Claims 15-40. (Canceled)

3

- 41. (Original) An isolated human antibody, or an antigen-binding portion thereof, which
- a) inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-9} M or less;
- b) has a heavy chain CDR3 comprising the amino acid sequence of SEQ ID NO: 25; and
- c) has a light chain CDR3 comprising the amino acid sequence of SEQ ID NO: 26.
- 42. (Original) The isolated human antibody, or an antigen-binding portion thereof, of claim 41 which further has a heavy chain CDR2 comprising the amino acid sequence of SEQ ID NO: 27; and a light chain CDR2 comprising the amino acid sequence of SEQ ID NO: 28.
- 43. (Original) The isolated human antibody, or an antigen-binding portion thereof, of claim 41 which further has a heavy chain CDR1 comprising the amino acid sequence of SEQ ID NO: 29; and a light chain CDR1 comprising the amino acid sequence of SEQ ID NO: 30.
- 44. (Original) An isolated human antibody, or an antigen-binding portion thereof, having a heavy chain variable region comprising the amino acid sequence of SEQ ID NO: 31, and a light chain variable region comprising the amino acid sequence of SEQ ID NO: 32.
- 45. (Original) The isolated human antibody of claim 44, comprising a heavy chain constant region selected from the group consisting of IgG1, IgG2, IgG3, IgG4, IgM, IgA and IgE constant regions.
- 46. (Original) The isolated human antibody of claim 45, wherein the antibody heavy chain constant region is IgG1.
- 47. (Original) The isolated human antibody of claim 44, which is a Fab fragment.
- 48 (Original) The isolated human antibody of claim 44, which is a F(ab')₂ fragment.

4

Group Art Unit: 1647

T-169 P.07/18 F-526

49. (Original) The isolated human antibody of claim 44, which is a single chain Fy fragment.

Claims 50-87. (Canceled)

88. (Previously presented) A pharmaceutical composition comprising the antibody or an antigen binding portion thereof, of claim 9, 41, 44, 151, 153, 164, 167, 168, 172, 183, or 184, and a pharmaceutically acceptable carrier.

Claims 89-90 (Canceled)

91. (Previously presented) The pharmaceutical composition of claim 88, further comprising an additional therapeutic agent selected from the group consisting of budenoside, corticosteroids, cyclosporin, sulfasalazine, aminosalicylates, 6-mercaptopurine, azathioprine, metronidazole, mesalamine, olsalazine, balsalazide, antioxidants, antibodies to IL-1 receptor, anti-IL-1β monoclonal antibodies, anti-IL-6 monoclonal antibodies, pyridinyl-imidazole compounds, anti-TNF antibodies, or fragments thereof, and anti-LT antibodies.

Claims 92-141. (Canceled)

- 142. **(Previously presented)** The isolated human antibody, or antigen-binding portion thereof, of claim 9, which is a recombinant antibody, or antigen-binding portion thereof.
- 143. (Previously presented) The isolated human antibody of any one of claims 9 to 11, wherein the antibody is a neutralizing antibody.
- 144. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding-portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* phytohemagglutinin blast proliferation assay (PHA assay) with an IC₅₀ of 1 x 10⁻⁷ M or less.

5

- 145. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-8} M or less
- 146. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC50 of 1 x 10⁻¹⁰ M or less.
- 147. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits human IFN γ production with an ICs0 of 1 x 10⁻¹¹ M or less.
- 148. (Previously presented) The neutralizing antibody of claim 143, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC50 of 5 x 10⁻¹² M or less.
- 149. (Previously presented) The isolated human antibody, or antigenbinding portion thereof, of claim 41, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an $1C_{50}$ of 1 x 10^{-10} M or less.
- 150. (Previously presented) The isolated human antibody, or antigenbinding portion thereof, of claim 41, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC₅₀ of 1 x 10⁻¹¹ M or less.
- 151. (Previously presented) An isolated human antibody, or an antigen-binding portion thereof, which dissociates from human IL-12 with a K_d of 1 x 10^{-10} M or less and binds to an epitope on the p40 subunit of human IL-12.
- 152. (Previously presented) The isolated human antibody of claim 151, which neutralizes the activity of human IL-12.
- 153. (Currently amended) A neutralizing isolated human antibody, or antigenbinding portion thereof, that binds to human IL-12 and dissociates from human IL-12 with a k_{off} rate constant of $1 \times 10^{-2} \, s^{-1} + 10^{-3} \, s^{-1}$ or less, as determined by surface plasmon resonance.

6

- 154. (Currently amended) The neutralizing isolated human antibody of claim 153, or an antigen-binding portion thereof, which dissociates from human IL-12 with a k_{off} rate constant of 1 x 10⁻⁴ s⁻¹ or less.
- 155. (Previously presented) The neutralizing isolated human antibody of claim 153, or an antigen-binding portion thereof, which dissociates from human IL-12 with a k_{off} rate constant of 1 x 10⁻⁵s⁻¹ or less.
- 156. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-7} M or less
- 157. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an $1C_{50}$ of 1×10^{-8} M or less.
- 158. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-9} M or less.
- 159. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC₅₀ of 1 x 10⁻¹⁰ M or less.
- 160. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an $1C_{50}$ of 1×10^{-11} M or less.

7

Group Art Unit: 1647

- 161. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits human IFNy production with an IC₅₀ of 1 x 10^{-10} M or less.
- 162. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC₅₀ of 1 x 10⁻¹¹ M or less.
- 163. (Currently amended) The neutralizing isolated human antibody of any one of claims 153 to 155 and 207, or an antigen-binding portion thereof, which inhibits human 1FN γ production with an IC₅₀ of 5 x 10⁻¹² M or less.
- 164. (Previously presented) An isolated human antibody, or an antigen-binding portion thereof, which
- a) dissociates from human 1L-12 with a $k_{\rm off}$ rate constant of 1 x 10⁻³ s⁻¹ or less, as determined by surface plasmon resonance;
- b) has a heavy chain CDR3 comprising the amino acid sequence of SEQ ID NO: 25; and
- has a light chain CDR3 comprising the amino acid sequence of SEQ ID
 NO: 26.
- 165. (Previously presented) The isolated human antibody of claim 164, or an antigen-binding portion thereof, which dissociates from human IL-12 with a $k_{\rm off}$ rate constant of 1 x 10⁻⁴ s⁻¹ or less.
- 166. (Previously presented) The isolated human antibody of claim 164, or an antigen-binding portion thereof, which dissociates from human IL-12 with a $k_{\rm off}$ rate constant of 1 x 10⁻⁵ s⁻¹ or less.
- 167. (Previously presented) An isolated human antibody, or antigen-binding portion thereof, that binds to human IL-12 and comprises:

a light chain CDR3 domain comprising the amino acid sequence of SEQ ID NO: 26; and

a heavy chain CDR3 domain comprising the amino acid sequence of SEQ ID NO: 25.

5

Group Art Unit: 1647

- 168. (Previously presented) An isolated human antibody, or an antigen-binding portion thereof, with a light chain variable region (LCVR) having a CDR3 domain comprising the amino acid sequence of SEQ ID NO: 26, and with a heavy chain variable region (HCVR) having a CDR3 domain comprising the amino acid sequence of SEQ ID NO: 25.
- 169. (Previously presented) The isolated human antibody, or an antigen-binding portion thereof, of claim 168, wherein the LCVR further has a CDR2 domain comprising the amino acid sequence of SEQ ID NO: 28 and the HCVR further has a CDR2 domain comprising the amino acid sequence of SEQ ID NO: 27.
- 170. (Previously presented) The isolated human antibody, or an antigen-binding portion thereof, of claim 169, wherein the LCVR further has CDR1 domain comprising the amino acid sequence of SEQ ID NO: 30 and the HCVR has a CDR1 domain comprising the amino acid sequence of SEQ ID NO: 29.
- 171. (Previously presented) A pharmaceutical composition comprising an antibody or an antigen binding portion thereof, and a pharmaceutically acceptable carrier, wherein the antibody comprises:
- a light chain CDR3 domain comprising the amino acid sequence of SEQ ID NO: 26; and
- a heavy chain CDR3 domain comprising the amino acid sequence of SEQ ID NO: 25.
- 172. (Previously presented) An isolated human antibody that binds human IL-12 and is the antibody J695, or an antigen binding portion thereof.
- 173. (Previously presented) A pharmaceutical composition comprising the isolated human antibody of claim 172 and a pharmaceutically acceptable carrier.

Claims 174-182. (Canceled)

9

- 183. (Previously presented) An isolated human antibody, or antigen-binding portion thereof, that binds to human IL-12 and dissociates from human IL-12 with a K_d of 1.34×10^{-10} M or less, and neutralizes human IL-12.
- 184. (Previously presented) The isolated human antibody of claim 183, or an antigen-binding portion thereof, which dissociates from human Π_a -12 with a K_d of 9.74 x 10^{-11} M or less.
- 185. (Previously presented) The isolated human antibody, or antigen-binding portion thereof, of claims 183 or 184, which is a recombinant antibody, or antigen-binding portion thereof.
- 186. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1 x 10^{-7} M or less.
- 187. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC_{50} of 1×10^{-8} M or less
- 188. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC₅₀ of 1×10^{-9} M or less.
- 189. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an IC₅₀ of 1 x 10^{-10} M or less.
- 190. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits phytohemagglutinin blast proliferation in an *in vitro* PHA assay with an $1C_{50}$ of 1×10^{-11} M or less.

10

- 191. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC50 of 1 x 10⁻¹⁰ M or less.
- 192. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC50 of 1 x 10⁻¹¹ M or less.
- 193. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits human IFN γ production with an IC50 of 5 x 10⁻¹² M or less.
- 194. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits IL-12 binding to its receptor in an IL-12 receptor binding assay (RBA) with an IC_{50} of 1 x 10^{-9} M or less.
- 195. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits IL-12 binding to its receptor in an IL-12 receptor binding assay (RBA) with an IC₅₀ of 1 x 10^{-10} M or less.
- 196. (Previously presented) The isolated human antibody of claim 185, or an antigen-binding portion thereof, which inhibits IL-12 binding to its receptor in an IL-12 receptor binding assay (RBA) with an IC_{50} of 1 x 10^{-11} M or less.
- 197. (Previously presented) The pharmaceutical composition of claim 88, further comprising an additional therapeutic agent selected from the group consisting of anti-IL-1 antibodies, anti-IL-2 antibodies, anti-IL-6 antibodies, anti-IL-7 antibodies, anti-IL-8 antibodies, anti-IL-15 antibodies, anti-IL-16 antibodies, anti-IL-18 antibodies, anti-EMAP-II antibodies, anti-GM-CSF antibodies, anti-FGF antibodies, anti-PDGF antibodies, anti-CD2 antibodies, anti-CD3 antibodies, anti-CD4 antibodies, anti-CD8 antibodies, anti-CD25 antibodies, anti-CD28 antibodies, anti-CD30 antibodies, anti-CD40 antibodies, anti-CD45 antibodies, anti-CD69 antibodies, anti-CD80 (B7.1) antibodies, anti-CD86 (B7.2) antibodies, and anti-CD90 antibodies.

11

- 198. (Previously presented) The pharmaceutical composition of claim 88, further comprising an additional therapeutic agent selected from the group consisting of methotrexate, FK506, rapamycin, mycophenolate mofetil, leflunomide, non-steroidal anti-inflammatory drugs (NSAIDs), ibuprofen, prednisolone, 6-mercaptopurines, soluble p55 TNF receptor, soluble p75 TNF receptor, sIL-1RI, sIL-1RII, sIL-6R, sIL-13, antiinflammatory cytokines, IL-4, IL-10, IL-11, IL-13, TGFβ, Vx740, anti-P7s, p-selectin glycoprotein ligand (PSGL), p75TNFRIgG (EnbrelTM), p55TNFRIgG (LenerceptTM), pyridinyl-imidazole compounds, anti-gp39 antibodies, anti-CD40L antibodies, methotrexate, cytokine suppressive anti-inflammatory drugs (CSAIDs), leflunomide, MP, mesalazine, chloroquinine/hydroxychloroquine, pencillamine, aurothiomalate, cochicine, salbutamol, terbutaline, salmeteral, theophylline, aminophylline, cromoglycate, nedocromil, ketotifen, ipratropium, and oxitropium.
- 199. (Previously presented) The pharmaceutical composition of claim 88, further comprising an additional therapeutic agent selected from the group consisting of anti-IRAK antibodies, anti-NIK antibodies, anti-IKK antibodies, anti-p38 antibodies, D2E7, cA2 (RemicadeTM), CDP 571, 5-aminosalicylic acid, TNFR-Ig constructs, dexamethasone, aminosalicylic acid, IL-1ra, methylprednisolone, cyclophosphamide, methorrexate, 4-aminopyridine, tizanidine, interferon-β1a (AvonexTM), interferon-β1b (BetaseronTM), Copolymer 1 (Cop-1; CopaxoneTM), hyperbaric oxygen, clabribine, anti-EMAP-II antibodies, IFNβ1a, IFNβ1b, and IL-1
- 200. ((Previously presented) A pharmaceutical composition comprising the antibody or an antigen binding portion thereof of claim 143, and a pharmaceutically acceptable carrier.
- 201. (Previously presented) The pharmaceutical composition of claim 200, further comprising an additional therapeutic agent selected from the group consisting of budenoside, corticosteroids, cyclosporin, sulfasalazine, aminosalicylates, 6-mercaptopurine, azathioprine, metronidazole, mesalamine, olsalazine, balsalazide, antioxidants, antibodies to IL-1 receptor, anti-IL-1β monoclonal antibodies, anti-IL-6

12

Group Art Unit: 1647

monoclonal antibodies, pyridinyl-imidazole compounds, anti-TNF antibodies, or fragments thereof, and anti-LT antibodies.

- The pharmaceutical composition of claim 200, (Previously presented) 202. further comprising an additional therapeutic agent selected from the group consisting of anti-1L-1 antibodies, anti-1L-2 antibodies, anti-1L-6 antibodies, anti-1L-7 antibodies, anti-IL-8 antibodies, anti- IL-15 antibodies, anti- IL-16 antibodies, anti-IL-18 antibodies, anti-EMAP-II antibodies, anti-GM-CSF antibodies, anti-FGF antibodies, anti-PDGF antibodies, anti-CD2 antibodies, anti-CD3 antibodies, anti-CD4 antibodies, anti-CD8 antibodies, anti-CD25 antibodies, anti-CD28 antibodies, anti-CD30 antibodies, anti-CD40 antibodies, anti-CD45 antibodies, anti-CD69 antibodies, anti-CD80 (B7.1) antibodies, anti-CD86 (B7.2) antibodies, and anti-CD90 antibodies.
- The pharmaceutical composition of claim 200, (Previously presented) 203. further comprising an additional therapeutic agent selected from the group consisting of methotrexate, FK506, rapamycin, mycophenolate mofetil, leflunomide, non-steroidal anti-inflammatory drugs (NSAIDs), ibuprofen, prednisolone, 6-mercaptopurines, soluble p55 TNF receptor, soluble p75 TNF receptor, sIL-1RI, sIL-1RII, sIL-6R, sIL-13, antiinflammatory cytokines, IL-4, IL-10, IL-11, IL-13, TGFβ, Vx740, anti-P7s, p-selectin glycoprotein ligand (PSGL), p75TNFRIgG (Enbrel™), p55TNFRIgG (Lenercept™), pyridinyl-imidazole compounds, anti-gp39 antibodies, anti-CD40L antibodies, methotrexate, cytokine suppressive anti-inflammatory drugs (CSAIDs), leflunomide, MP, mesalazine, chloroquinine/hydroxychloroquine, pencillamine, aurothiomalate, cochicine, salbutamol, terbutaline, salmeteral, theophylline, aminophylline, cromoglycate, nedocromil, ketotifen, ipratropium, and oxitropium.
- The pharmaceutical composition of claim 200, 204. (Previously presented) further comprising an additional therapeutic agent selected from the group consisting of anti-IRAK antibodies, anti-NIK antibodies, anti-IKK antibodies, anti-p38 antibodies, D2E7, cA2 (RemicadeTM), CDP 571, 5-aminosalicylic acid, TNFR-Ig constructs, dexamethasone, aminosalicylic acid, IL-Ira, methylprednisolone, cyclophosphamide, methotrexate, 4-aminopyridine, tizanidine, interferon-βla (AvonexTM), interferon-βlb

13

Group Art Unit: 1647

(BetaseronTM), Copolymer 1 (Cop-1; CopaxoneTM), hyperbaric oxygen, clabribine, anti-EMAP-II antibodies, IFNβ1a, IFNβ1b, and IL-1.

- 205. (Previously presented) The isolated human antibody of claim 9, or an antigen-binding portion thereof, that binds to human IL-12 and dissociates from human IL-12 with a K_d of 1.34 x 10^{-10} M or less.
- 206. (Previously presented) The isolated human antibody of claim 9, or an antigen-binding portion thereof, that binds to human IL-12 and dissociates from human IL-12 with a K_d of 9.74 x 10⁻¹¹ M or less.
- 207. (New) The neutralizing isolated human antibody of claim 153, or an antigenbinding portion thereof, which dissociates from human IL-12 with a $k_{\rm off}$ rate constant of 1 x 10^{-3} s⁻¹ or less.